



MAJOR SOURCE OPERATING PERMIT

PERMITTEE: NUCOR STEEL DECATUR, LLC
FACILITY NAME: NUCOR STEEL DECATUR, LLC
FACILITY/PERMIT NO.: 712-0037
LOCATION: DECATUR, ALABAMA

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol. and 2007 Cum. Supp.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

Issuance Date: September 6, 2006

Modification Date: Draft

Expiration Date: September 5, 2011

Summary Page for 106.87 MMBtu/hr Galvanizing Line with Selective Catalytic Reduction

**Permitted Operating
Schedule:**

24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP016	106.87 MMBtu/hr Galvanizing Line with Selective Catalytic Reduction	PM	0.75 lb/hr and 0.0076 lbs/MMBtu	Rule 335-3-14.04(9) PSD/BACT
EP016	106.87 MMBtu/hr Galvanizing Line with Selective Catalytic Reduction	CO	8.3 lb/hr and 0.084 lbs/MMBtu	Rule 335-3-14.04(9) PSD/BACT
EP016	106.87 MMBtu/hr Galvanizing Line with Selective Catalytic Reduction	VOC	0.55 lb/hr and 0.0055 lbs/MMBtu	Rule 335-3-14.04(9) PSD/BACT
EP016	106.87 MMBtu/hr Galvanizing Line with Selective Catalytic Reduction	NO _x	6.6 lbs/hr and 0.067 lbs/MMBtu	Rule 335-3-14.04(9) PSD/BACT
EP016	106.87 MMBtu/hr Galvanizing Line with Selective Catalytic Reduction	SO ₂	0.06 lbs/hr and 0.0006 lbs/MMBtu	Rule 335-3-14.04(9) PSD/BACT
EP016	106.87 MMBtu/hr Galvanizing Line with Selective Catalytic Reduction	Opacity	(See General Proviso 29)	335-3-4-.01(1) SIP

Provisos for 106.87 MMBtu/hr Galvanizing Line with Selective Catalytic Reduction

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1-.03, "Major Source Operating Permits."	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration Permitting (PSD)]."	Rule 335-3-14-.04
<u>Emission Standards</u>	
1. Particulate matter emissions from the galvanizing line shall not exceed 0.75 lb/hr and 0.0076 lb/MMBtu.	Rule 335-3-14-.04(9) PSD/BACT
2. This unit is subject to emission standard listed in General Proviso 29.	Rule 335-3-4-.01(1)
3. Carbon monoxide emissions from the galvanizing line shall not exceed 8.3 lb/hr and 0.084 lb/MMBtu.	Rule 335-3-14-.04(9) PSD/BACT
4. Sulfur Dioxide emissions (SO ₂) from the galvanizing line shall not exceed 0.06 lb/hr and 0.0006 lbs/MMBtu.	Rule 335-3-14-.04(9) PSD/BACT
5. Volatile Organic Compound (VOC) the galvanizing line shall not exceed 0.55 lb/hr and 0.0055 lbs/MMBtu.	Rule 335-3-14-.04(9) PSD/BACT
6. Nitrogen oxide emissions from the galvanizing line shall not exceed 6.6 lb/hr and 0.067 lb/MMBtu.	Rule 335-3-14-.04(9) PSD/BACT
7. The SCR inlet flue gas temperature shall be maintained at or above 600 °F prior to the injection of ammonia reagent.	Rule 335-3-14-.04(9) PSD/BACT
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Method 5 of 40 CFR Part 60 (latest edition), Appendix A shall be used in the determination of particulate matter emissions.	Rule 335-3-1-.04
2. Method 6 of 40 CFR Part 60 (latest edition), Appendix A shall be used in the determination of sulfur dioxide emissions.	Rule 335-3-1-.04
3. Method 7e of 40 CFR Part 60 (latest edition), Appendix A shall be used in the determination of nitrogen dioxide emissions.	Rule 335-3-1-.04
4. Method 9 of 40 CFR Part 60 (latest edition), Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.04

Federally Enforceable Provisos	Regulations
5. Method 10 of 40 CFR Part 60 (latest edition), Appendix A shall be used in the determination of carbon monoxide emissions.	Rule 335-3-1-.04
6. Method 25a of 40 CFR Part 60 (latest edition), Appendix A shall be used in the determination of VOC emissions.	Rule 335-3-1-.04
<u>Emission Monitoring</u>	
1. A monitoring device for the continuous measurement and recording of the SCR inlet flue gas temperature shall be installed, operated, and maintained in accordance with manufacturer's recommendations. If the flue gas temperature falls below 600 °F, the ammonia reagent flow shall be automatically shut off and the facility shall investigate and initiate any necessary corrective actions within 2 hours.	Rule 335-3-16-.05(c)
2. A CEMS for NO _x , conforming to the specifications of Appendix B and Appendix F of 40 CFR 60, shall be installed, operated and maintained on the exhaust of the Galvanizing Line Furnace with Selective Catalytic Reduction (EP016).	Rule 335-3-16-.05(c)
<u>Recordkeeping and Reporting Requirements</u>	
1. The permittee shall maintain a record of all monitoring required by this permit. This shall include all problems observed and corrective action taken. The records shall be maintained in a form suitable for inspection and shall be kept on site for a period of five (5) years.	Rule 335-3-16-.05(c)

Federally Enforceable Provisos**Regulations**

2. A report of excess emissions will be submitted to the Department for each calendar quarter within 30 days following the end of the quarter. For the purposes of this report, exceedances are defined as NO_x emissions over 0.067 lb/MMBtu and 6.60 lbs/hr as computed from a 1 hour average. The report will include, at a minimum, the following information:

Rule 335-3-16-.05(c)

- (a) The date and time of commencement and completion of each time period of excess emissions.
- (b) The nature of the cause of the excess emissions (if known). The date and time identifying each period during which the monitoring systems were inoperative (except for zero and span checks) and the nature of the system repairs or adjustments.
- (c) Equations used to convert NO_x emission data as monitored to the required reporting standards (lbs/hr and lb/MMBtu) will be included with the reports.
- (d) When no excess emissions have occurred and the monitoring systems were not inoperative or did not require repairs or adjustments, such information shall be stated in the reports.
- (e) Data recorded during periods of system breakdowns, repairs, adjustments, and calibration checks shall not be included in any of the above data averages.

All the original data charts, performance evaluations, calibration checks, adjustments and maintenance records and other information regarding the monitoring systems will be maintained in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such recording.

Summary Page for Copper Picking Line with Wet Suppression

**Permitted Operating
Schedule:**

24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
FUG	Copper Picking Line with Wet Suppression	PM	N/A	N/A
FUG	Copper Picking Line with Wet Suppression	Opacity	(See General Proviso 18)	Rule 335-3-4-.02 SIP

Provisos for Copper Picking Line with Wet Suppression

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1-.03, "Major Source Operating Permits."	Rule 335-3-16-.03
<u>Emission Standards</u>	
1. The facility shall install, operate, and maintain a wet suppression system in accordance with the manufacturer's recommendations.	Rule 335-3-4-.02
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Method 22 of 40 CFR Part 60 (latest edition), Appendix A shall be used in the determination of opacity.	Rule 335-3-1-.04
<u>Emission Monitoring</u>	
1. An observation of each emission point associated with this source will be accomplished at least weekly. If visible emissions in excess of 10% opacity are noted, corrective action shall be initiated within 2 hours to reduce the emissions. After the corrective action has been performed, the Permittee shall conduct another visual check to ensure that the visible emissions have been reduced.	Rule 335-3-16-.05(c)
<u>Recordkeeping and Reporting Requirements</u>	
1. The Permittee shall maintain a record of all visual emission observations. This shall include all problems observed and corrective action taken. The records shall be maintained in a form suitable for inspection and shall be kept on site for a period of five (5) years.	Rule 335-3-16-.05(c)